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THE ART OF MAKING OBOE REEDS

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ABSTRACT

My work is about the reed making craft, which is very important for every oboe player. I write about different cane, tools, measurements, my own way of making reeds and my experiences. I also interviewed some professional oboists and compared the different ways of making reeds.

Key words: Reeds, oboe, tools, scraping

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1. Introduction

In this work I share my own experiences as an oboist and becoming a professional musician; how is it to be an oboe player and how much one has to work with reeds and create your own way of making them.

I also explain the evolution of the oboe as a woodwind double reed instrument and the development of reed making.

Reed making is a craft! First of all one should shape the wood and only after that scrape the reed. What is shaping? And how to choose the right cane for that?

Personally, I make reeds all the way from the tube cane to the actual reed by myself. Trying new things always helps me to develop my own way of reed making.

In the beginning there are too many tools and models to choose from, depending on the player, the oboe model and style of playing. What to choose and how to start? Is there is any wrong or right way?

I have taken some interviews from professional oboists to show how different and individual the reed making process is for everybody.

2. Construction of the instrument "from the start or how did the oboe look before"

The oboe as a double reed woodwind instrument began more than 300 years ago. There are three roughly defined main stages.

The first stage covers the invention of the oboe in the middle of the 17th century to the end of 18th century. Despite very primitive and limited device and technical possibilities, because of its sound quality, the oboe nevertheless quickly became one of the leading instruments in the opera as well as in wind orchestras.



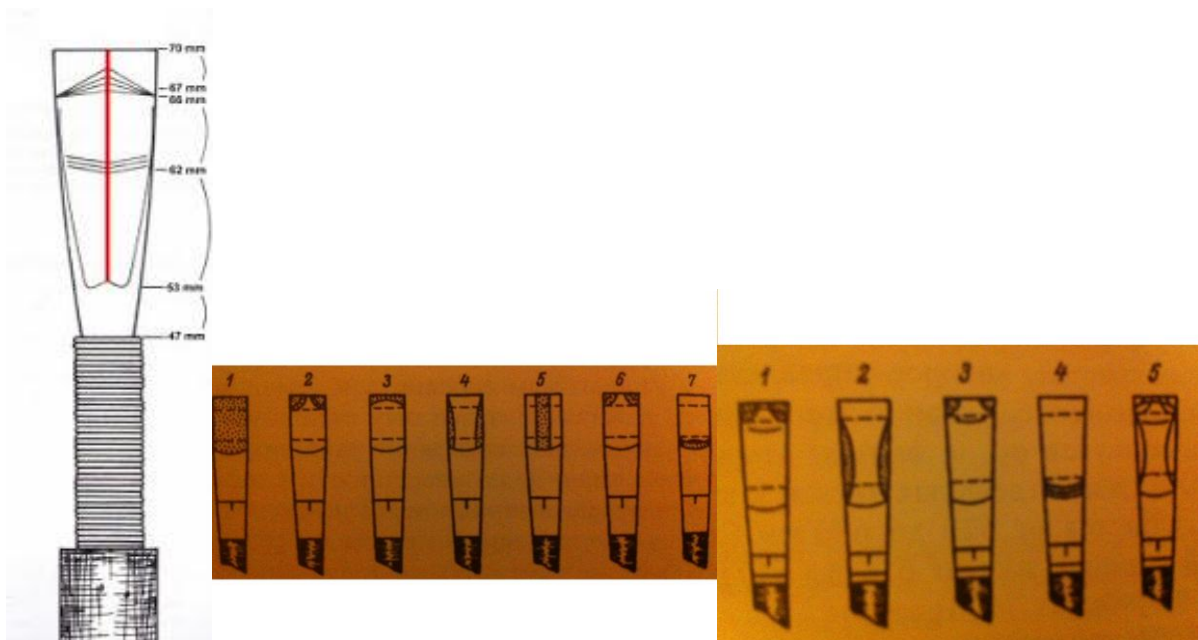
The second stage of the evolution of the oboe continues for almost the whole 19th century leading to a new French system. The construction of the instrument improved, increasing the number of the keys, expanding the range and creating new technical possibilities.



The third stage of the history of the oboe falls in the last decades of the 19th and 20th centuries. It began with a radical reform of the construction of the instrument, which occurred in France in 1881. The French system expanded expressive and technical capabilities of the oboe, making the instrument more virtuosic to match the flute and clarinet.¹



The reed went through its own evolution together with the oboe. As a result there are two types: a wider reed - for the German system, and more a narrow reed with a long staple - for the French oboe. Both types have different ways of scraping. Later on, the American system of scraping began to be implemented. These different ways of scraping affect the sound.²



American scraping

French system

German system

1. I. Pushechnikov 2005

2. V.P. Veselov 1987

3. About reed making

Most oboists assume, that the most important part of playing and learning how to play the oboe is reed making.

The oboist must find their own way of making reeds, which fits them the best, giving them the possibilities of playing and sounding as they wish.

a) First thoughts and preparation

How to start to make your own reeds and from where to get the materials?

There are many possibilities. One can buy all the required equipment, but will not be able to make the reed alone for the first time. I needed a reference of someone I trust; my teacher was the best example. I tried to make the same type of reed and copy his way of making reeds. I also found enormous help and support from other oboe students, by making reeds together when I didn't have all the tools and had no idea how to start. I learned a lot from them.

Reed making is a craft and it took me some time to get used to it. I made many reeds before I could feel it in my muscles/hands.

I never stop trying new things and developing my reeds; there is always a feeling that something can be better!

b) Cane

The physical parameters affect the process of getting the reed to sound. The construction of the oboe double reed consists of two pieces of cane fastened together to the staple. The double reed is made from the special cane *Arundo Donax*. The condition of the cane depends on its age, drying and storage. The traditional region for cane is France, but in general there are several regions.

Cane is sold in several forms: as tubes, gouged, gouged and shaped, or gouged and shaped and profiled. It takes a lot of time and many steps, depending in which form you have your cane, before you are able to scrape the reed.

The strength of the cane is very individual. Some players prefer harder cane, some softer.

I personally prefer harder cane, but not too hard. I think it's easy to work with and control while scraping. Also it fits my oboe better.

Wood quality affects the reed. I can't make a reed from bad cane. I choose the cane by its color and age: more yellow with some dark spots tells me that the cane is ready to be used. If it's light yellow with a fraction of green it needs some more time in the sun. Even if I bought this type of cane I can give it a try by putting it in the sun for a while.



4. My own way of making reeds.

When I began to play the oboe, for many years I was buying reeds. I made my first reed during my second year of my Bachelor studies at the Academy of Music and Drama, Gothenburg University. My teacher Mårten Larsson was and is my mentor and the person from whom I have learned how to make reeds.

One of the important aspects is to find and to use the right kind of reed making for your instrument. Being able to make reeds helps to open up your instrument abilities.

I play a Roland Dupin oboe. It's a French brand with the French system from Luxembourg.

I have to make many steps with a lot of measurements before I can start working on the scraping the reed. The way of doing each step is also very individual.

First of all I select the right tube diameter for my cane. This is important in achieving the correct opening for the reeds. I like my reeds to be open so I use 9.5-10mm diameter. Then I split the tube of cane in to 3 equal parts, and soak them not longer than one and a half hours in cold water. Currently I use the Rigotti cane. I order it in tubes from the factory in France. After trying many different sorts of the cane I found that Rigotti cane fits me and my oboe the best. From my experience, it's better when the cane is not too damp. Also when it's dry it can easily crack. After that, I gouge the cane somewhere between 55-57/100mm. In my opinion, 56/100 mm is the best. To "gouge" the cane, I take away the wood from the inside of a tube with a special gouging machine.

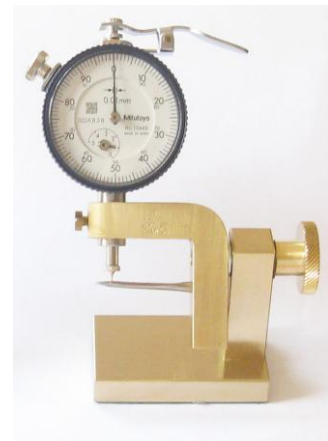


If I don't measure the cane carefully while gouging it, I can end up with cane that is too thick, which will cause me problems when I start scraping. It would be far too much wood and impossible to make the reed vibrate. The thickness of my gouge has a lot to do with the resistance of the reed. It is also very closely connected with the hardness of the cane. Using the hardness tester I can sort the cane into four categories: very hard, hard, medium & soft. This is not a measure of quality. It is representative of the density of the fibers in the cane. The hardness chosen must correlate with the appropriate gouge thickness. Harder cane must be gouged thinner and softer cane thicker.

Hardness tester



Micrometer



The shape of the cane is a very important parameter in reed making. Many of the sound, intonation and stability problems encountered in reed making can be helped or solved by finding the right shape. My first shape was Reiger 2. It's a hand shaper and very popular in Scandinavia.



At the moment I use number 118 shape. The shaping machine (there are many brands of them) is superior in quality to hand shape tips because the gouged cane sits flat, not folded, and the angle of the blade is set ensuring perfectly even sides. This is crucial in helping reeds vibrate properly once bound onto the staple.



This is the shape 118, there are many different ones, wider and narrower

I have experimented with warming up the staple before I tie the reed, but I found that it's not necessary, doesn't make any difference for me and takes a lot of time. I tie my reed, so the reed is 73 mm in total on the Glotin 47mm staple.



Then I leave the reeds to rest for at least a week, to make the cane settle on the staple and not move. When I open the reed and make the first steps of scraping just the sides and the tip, I leave the center the “heart” of the reed untouched. The next day, when I continue scraping, I cut the reed around 72,5-72mm long. While scraping I have to be very careful and not press the knife too hard, otherwise it can take too much cane and make the reed unbalanced, affecting the intonation. I try to scrape the “heart” of the reed at the end as the very last step.

For me the reed making process is a professional art, which I enjoy!

In the oboe world there is an expression “Mozart reed”. It is the reed for playing Mozart in general, but especially the Mozart oboe Concerto in C dur K.314. For me it has to be an almost perfect reed, which has a nice soft sound, very flexible and responds very well. This is a reed which helps me to show my sound and musical skills.

5. Interviews

I had the honor to study at the Academy of Music and Drama, Gothenburg University with Mårten Larsson, the Solo oboist of the Gothenburg Symphony Orchestra. From him I learned not only how to play the oboe, but the whole craft of reed making. I interviewed him to share his experiences with reed making. The other participant in the interview is Carl Andersson, the second oboist of the Helsingborg Symphony Orchestra whom I recently met and had a pleasure to play with in Helsingborg. Mårten Larsson is playing on Roland Dupin oboe, but Carl Andersson is playing on Marigaux: both are the French system oboes.

1. Is it a hobby”to make reeds” or a professional need?

Mårten: For me it's both.

Carl: It's a professional need, but I always try to enjoy!

2. How many reeds a month do you make?

Mårten: Not so often, I make 10 reeds every month.

Carl: I make 10-15 reeds twice a year and then I play a half season on them, mostly as a second player, but also first in chamber music and as a soloist.

3. How long time does it takes until you can try and play on the reed?

Mårten: I do it immediately.

Carl: I always have a very long foresight with reeds. So when I have made the first scrape the reeds have to rest for some days, sometimes longer.

4. What is the "Mozart reed" means to you? Is it something special? Different? For how long do you prepare it?

Mårten: A Mozart reed should be quite closed, not too heavy to play on. The reed should have the right opening from the beginning. One week before the concert I practice on it.

Carl: Normal. I never have "special" reeds.

5. For different concerts do you use a special reed?

Mårten: Yes I do. When I make reeds, I sit in my room with a candle and listen to the music I'm going to play. Listening and imagining on which reed I can play that particular piece and then I try the reed directly.

Carl: I try my best to never play on a reed which I can't play both softly in the low register and with a full sound on the high register.

6. Do you like to experiment with reeds or you prefer your own way and stick with it?

Mårten: Just my way! Which is : I use Rigotti cane from France, gouge it somewhere between 55-56-57mm, then I tie my reeds 73 mm, after I cut them around 71mm on the staple Glotin 47mm.

Carl: If I hear about something I always try it. My way of making reeds and advice: Don't use too narrow shaping. Just tie up until the reed closes, so about 73 mm with a 46 mm staple. Otherwise you "kill" the reed. Always use metal wire, so that the reed is fixed and doesn't move. Warm up the staple before you tie up the reed. Don't use staples which are too conical (bad intonation). Don't make the reeds too fast, they last longer with foresight. Always have one upside and one downside on the reed. Scrape the body of the reed as evenly as possible. Make the upside slightly longer when you cut the reed (as the clarinet)

Many of the most successful oboists in Scandinavia use Glotin staple, 46mm or 47 mm diameter.

7. From whom have you learned reed making?

Mårten: The first person was Erik Nord Larsen. I was 14 years old and we met in Arvika. Then I learned from Bo Eriksson. He was like a God for making reeds.

Carl: I have had the opportunity to play with many of the most successful oboists in Scandinavia. Especially when I was younger I always talked about reeds and instruments. And have learned a lot from many oboe players.

8. How to make first/second oboe reed? What does it mean to you?

Mårten: The first oboist reed must be strong, to be able to come through the whole orchestra. And of course very flexible. For me it's hard and really a challenge to make the second oboe reed. I must have the right sound. To make the reed which blends with the first oboe player. It has to be flexible, to be able to play soft in the low register.

Carl: I use the same reed if I play first or second oboe, chamber music or as a soloist. You can use a worse reed, when you play second, but I always try to play my best. It doesn't make any difference for me. When I play second oboe I try to blend to the first oboe player, to the sound and style of playing.

9. Can you call the reed making an art?

Mårten: Yes I do. In my opinion it's really is an art!

Carl: Reed making is a handicraft. Music is art!

P.S. Mårten: Start your day with practicing and than you can make reeds. The more you practice, the more you get flexible in your embouchure and you are able to play on any reed.

Carl: I think that embouchure and breathing technique is much more vital reason for a good oboe playing, then reeds.

6. Opinions of others

Everybody has their own way of making reeds. Often oboists search for the reed which is comfortable to play on. What is comfortable?

For me a comfortable reed is: the reed which responds in all the ranges and with which I am able to play different dynamics. Also it has a good attack, so I would be able to play staccato.

How is it that the reed can be perfect for one person and absolutely feel wrong (strange) for another?

When I try a reed of another oboist I can find it good and easy to play on, it can feel even better than my own reeds. But after playing on the reed for even less than one minute I can feel it's not mine and it's not so comfortable and my embouchure can't recognize it. Of course, I can adapt very easily to it by playing on it for at least an hour. In general I want to feel safe and secure on the reed.

I know my own reeds better and what to expect from them, which is difficult with an unknown reed.

I always listen to the tips from other oboists and try many different ways, but in the end I create the reed which fits me the best. I'm careful with changes and am always aware of what I do, in case it doesn't work and I will have to go back to my own way of making reeds.

During writing this thesis I have tried and experimented with a new way of making reeds. At the moment I'm studying at the Royal Danish Academy of Music in Copenhagen and the oboists here are using a different way of reed making. One of my teachers Joakim Dam Thomsen showed me his way of making reeds, which is different from

what I'm used to. Just to try it I've made some reeds following this new way. I used the American cane called "ARG" with the 10-10,5mm diameter of the tube. Then I gouged it around 58-57/100mm, it must be less than 60/100mm, but not 55/100mm otherwise it's too thin.

The shape is number 14 or "Christoph Hartmann" shape, it's a bit wider from what I'm used to. I tie the reed up to 74mm long on the Albrecht Mayer new staple 47 mm and cut the reed at 72mm. The way of scraping is also not the same. Here I was more concentrated on the tip of the reed. It has to be thinner and clearer, which gives the reed more vibration. I didn't need to be so concentrated on scraping much of the sides of the reed.

It was interesting to work with a new way of making reeds. I found some new tips for myself. First of all, the diameter of the tube cane. In the future I would like to order some of the Rigotti cane with the 10-10,5mm diameter. It will make my reeds not so open and more comfortable to play on directly, without waiting until the reed becomes flatter and easier to play on. My second thought is to make the scraping more smooth with a thinner tip of the reed.

In general I will still continue with my own way of making reeds.

7. My own reed experiences

One day it feels like I succeed and have the concert reed, and the week after the reed has lost the vibrations and I am not happy with it. How to handle and control my own reeds?

Reeds have a tendency to change. Humidity is dangerous for the reeds. They can change in a good and bad way.

From my own experience, I can say that the reeds depend on many things, from the moment I gouge the cane and how much time I soak it before I start gouging until I actually scrape the reed. I should do all the steps and measurements very carefully.

When I have a new reed, if I play on it for a while, I get to know it and I can discover what to use it for. I can decide if it will become a concert reed or just a practice reed. Often a new reed is very heavy in the beginning; it is better not to scrape it too fast and make it sound perfect directly. By making some small adjustments every day on my reed I can control it better. If a particular reed doesn't work and it's not changing than I just leave it in the box and forget it for a while. Perhaps one day I could find that I have an amazing reed!

I try to make reeds regularly and prepare them in advance. That makes me feel less stressed and I always have some reeds to play on. I can take a bit of the cane the day before or the same day of the concert instead of over scrape it.

Practicing on heavy reeds makes my embouchure stronger and gives me the possibility to sustain any long solo performance. But I have to be careful to not be tense while I play on heavy reeds. It has a tendency to destroy my embouchure if it's too heavy and hard to play on.

I have learned from other oboists not only good points, but the bad experiences as well. By imitating I have saved some time and I found that it is a very effective way of learning the reed making process.

8. Conclusion

In the end, all oboe players find their own way which works for them. After many years I can say I found my way.

For a long time I've tried to make the perfect reed, but there is no limit to perfection! So I'm still open and trying new things all the time!

9. Literature

1. I. Pushechnikov “Art of playing the oboe”, St. Petersburg 2005
2. V.P. Veselov “Making reeds for the oboe”, St. Petersburg 1987

[1](#)I. Pushechnikov 2005

[2](#)V.P. Veselov 1987